

C L A I M S

1. A yarn false twist texturing apparatus for false twist texturing a plurality of synthetic yarns, comprising

5 a plurality of side by side processing stations, with each station comprising a plurality of feed roll systems, a primary heater, a cooling device, a false twist unit, a secondary heater, and a takeup device,

10 a takeup module mounting the takeup devices; a processing module mounting the false twist units,

said takeup module and said processing module being joined to form a frame section, with the frame
15 section being arranged between a doffing aisle which is adjacent the takeup module and a servicing aisle which is adjacent the processing module, and

wherein the plurality of feed roll systems are arranged so that the yarn being processed advances
20 serially along the primary heater, the cooling device, the false twist unit, the secondary heater, and to the takeup device, and wherein the yarn advancing from the false twist unit along the secondary heater and to the takeup device forms a generally U-shaped path.

25 2. The yarn false twist texturing apparatus of Claim 1 wherein the secondary heater of each processing station is generally horizontally oriented to form a base of said U-shaped path.

30 3. The yarn false twist texturing apparatus of Claim 2 further comprising a feed module positioned on the side of said servicing aisle opposite said frame section, with said feed module mounting one of said

plurality of feed roll systems of each of said processing stations, and such that a yarn passage from the feed module to the processing module is formed by the primary heater and the cooling device which are
5 arranged above the servicing aisle such that the yarn is guided from the one feed roll system to the false twist unit along a substantially inverted V-shaped path.

4. The yarn false twist texturing apparatus
10 of Claim 2 wherein the secondary heater of each processing station is arranged adjacent the bottom of said frame section and is oriented so as to be inclined relative to the horizontal by an angle α of between about 5° and about 45°

15 5. The yarn false twist texturing apparatus of Claim 2 wherein one of said plurality of feed roll systems is mounted on the processing module between the false twist unit and an inlet end of the secondary heater, and with the one feed roll system and the inlet
20 end being positioned so that the path of the yarn leaving the one feed roll system is aligned with the inlet end.

6. The yarn false twist texturing apparatus of Claim 5 wherein a further one of said plurality of
25 feed roll systems is mounted on the takeup module between the secondary heater and the takeup device, and with the further one of the feed roll systems being positioned so that the path of the yarn leaving an outlet end of the secondary heater is aligned with the
30 point at which the yarn initially contacts the further one of the feed roll systems.

7. The yarn false twist texturing apparatus of Claim 6 wherein each of the one feed roll system and the further one of the feed roll systems comprises a godet which is looped several times by the yarn, and a
5 guide roll associated therewith, and with the godet being driven independently of the other feed roll systems.

8. The yarn false twist texturing apparatus of Claim 2 wherein the secondary heater includes a
10 heating channel, and an injector for threading the yarn through the heating channel.

9. The yarn false twist texturing apparatus of Claim 8 wherein each processing station further comprises a threading device located between an outlet
15 end of the secondary heater and the takeup device and including a further injector for threading the yarn in the takeup device.

10. The yarn false twist texturing apparatus of Claim 1 wherein the primary heater and the cooling
20 device of each processing station are arranged in a common plane above the servicing aisle.

11. A yarn false twist texturing apparatus for false twist texturing a plurality of synthetic yarns, comprising
25 a plurality of side by side processing stations, with each station comprising a plurality of feed roll systems, a primary heater, a cooling device, a false twist unit, and a takeup device,
a takeup module mounting the takeup devices;
30 a processing module mounting the false twist units,

said takeup module and said processing module being joined to form a frame section, with the frame section being arranged between a doffing aisle which is adjacent the takeup module and a servicing aisle which is adjacent the processing module, and

wherein the plurality of feed roll systems are arranged so that the yarn being processed advances serially along the primary heater, the cooling device, the false twist unit, and to the takeup device, and wherein the yarn advancing from the false twist unit to the takeup device forms a generally U-shaped path.

12. The yarn false twist texturing apparatus of Claim 11 further comprising a yarn guide tube disposed along at least a portion of the U-shaped path between the false twist unit and the takeup device.